

Protocol for IBD (inflammatory bowel disease)

Method: TNBS colitis

- 1 On day 1, carefully shave a 1.5×1.5 cm field of the back skin of the mouse using an electric razor. To avoid the mouse from touching TNBS (may potentially induce oral tolerance), preferentially select an area on the back between the shoulders.
- 2 While holding the mouse with one hand, apply with the other hand, using a 200 µl pipette, 150 µl of the TNBS presensitization solution to the shaved abdominal skin. The solution is absorbed by the skin quickly. Control mice are treated with presensitization solution without TNBS. Leave the mice until day 8.
- 3 On day 8, weigh and mark the mouse.
- 4 Anesthetize the mouse by intraperitoneal injection of 150 µl of 5% chloral hydrate solution per 20 g body weight.
- 5 Fit a 3.5 F catheter to a 1 ml syringe and fill with TNBS solution.
- 6 Insert the catheter into the colon 4 cm proximal to the anus. Proceed carefully to avoid damage or perforation of the colon wall.
- 7 Slowly administer 150 µl of TNBS solution per 20g body weight into the colon lumen.
- 8 Remove the catheter gently from the colon and keep the mouse with the head down in a vertical position for 60 s. To get reproducible results, it is important to ensure that the TNBS solution remains completely in the colon lumen.
- 9 Return the mouse to the cage.